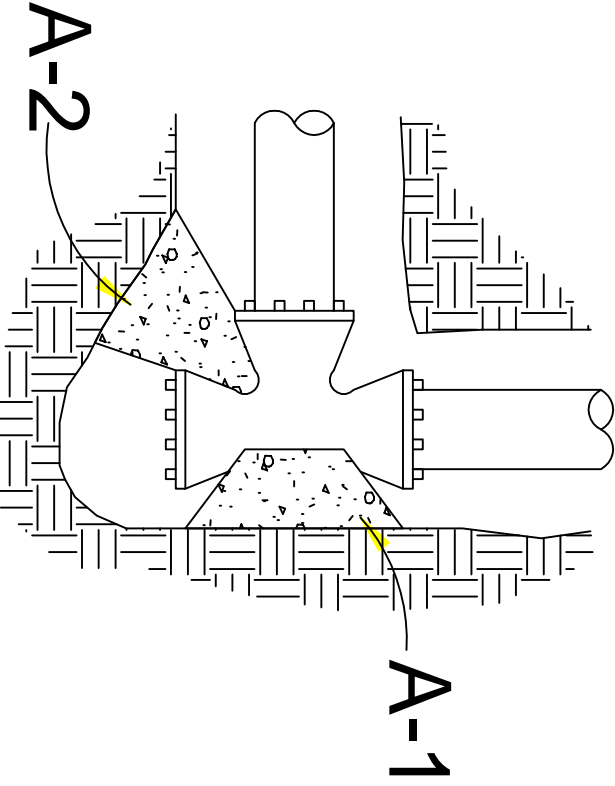


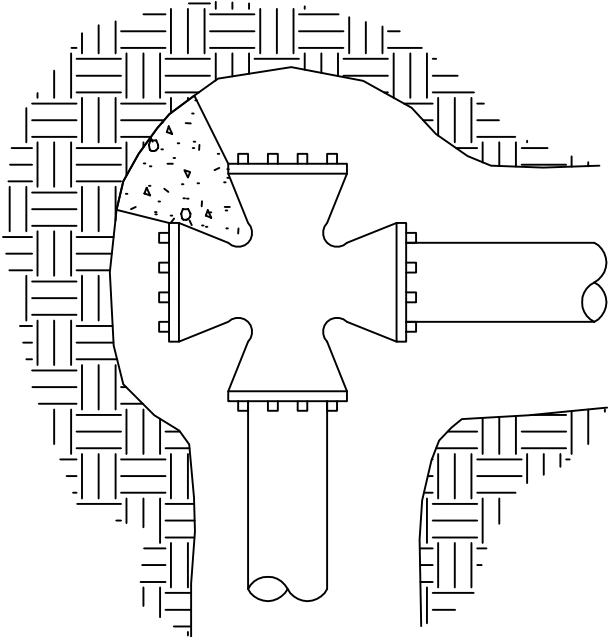
(HORIZONTAL) BEARING AREA OF THRUST BLOCKS IN SQUARE FEET								(VERTICAL) VOLUME OF THRUST BLOCK IN CUBIC YARDS				
FITTING SIZE	TEE, WYE, DEAD END AND HYDRANT	STRADDLE BLOCK	90 BEND PLUGGED CROSS	TEE PLUGGED ON RUN		45 BEND	22-1/2 BEND	11-1/4 BEND	90 BEND	45 BEND	22-1/2 BEND	11-1/4 BEND
				A-1	A-2							
4	1.0	1.6	1.4	1.9	1.4	1.0	---	---	---	---	---	---
6	2.1	3.7	3.0	4.3	3.0	1.6	1.0	---	1.3	---	---	---
8	3.8	6.5	5.3	7.6	5.4	2.9	1.5	1.0	2.3	1.1	---	---
10	5.9	10.2	8.4	11.8	8.4	4.6	2.4	1.2	3.7	1.8	---	---
12	8.5	14.7	12.0	17.0	12.0	6.6	3.4	1.7	5.5	2.8	1.2	---
14	11.5	---	16.3	23.0	16.3	8.9	4.6	2.3	7.6	3.9	1.7	---
16	15.0	26.1	21.3	30.0	21.3	11.6	6.0	3.0	9.9	5.1	2.3	0.9
18	19.0	---	27.0	38.0	27.0	14.6	7.6	3.8	---	---	---	---
20	23.5	40.8	33.3	47.0	33.3	18.1	9.4	4.7	---	---	---	---
24	34.0	58.8	48.0	68.0	48.0	26.2	13.6	6.8	---	---	---	---

NOTES:

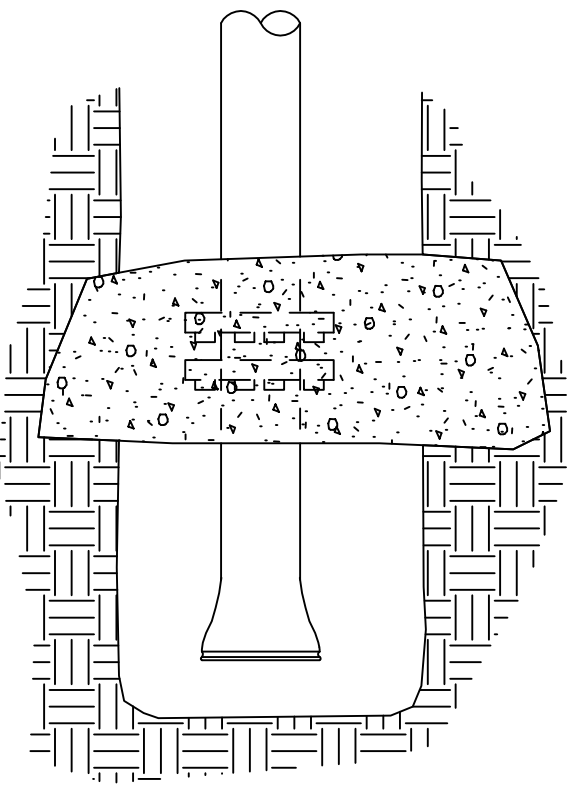
- ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:
BEARING AREA = (TEST PRESSURE / 150) x (2000 / SOIL BEARING STRESS) x (TABLE VALUE)
- ABOVE VOLUMES BASED ON TEST PRESSURE OF 150 PSI AND THE WEIGHT OF CONCRETE = 4050 POUNDS PER CUBIC YARD. TO COMPUTE FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION:
VOLUME = (TEST PRESSURE / 150) x (TABLE VALUE)



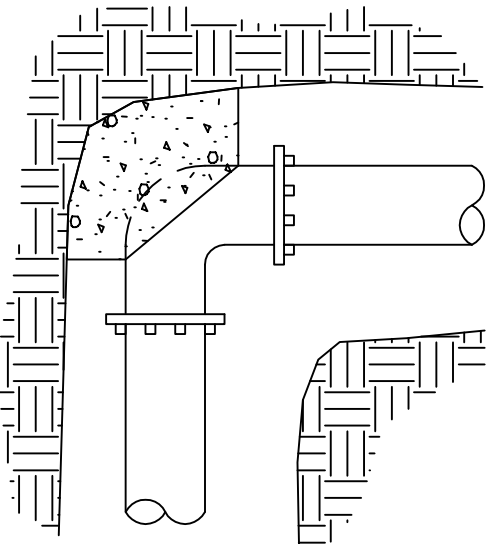
TEE



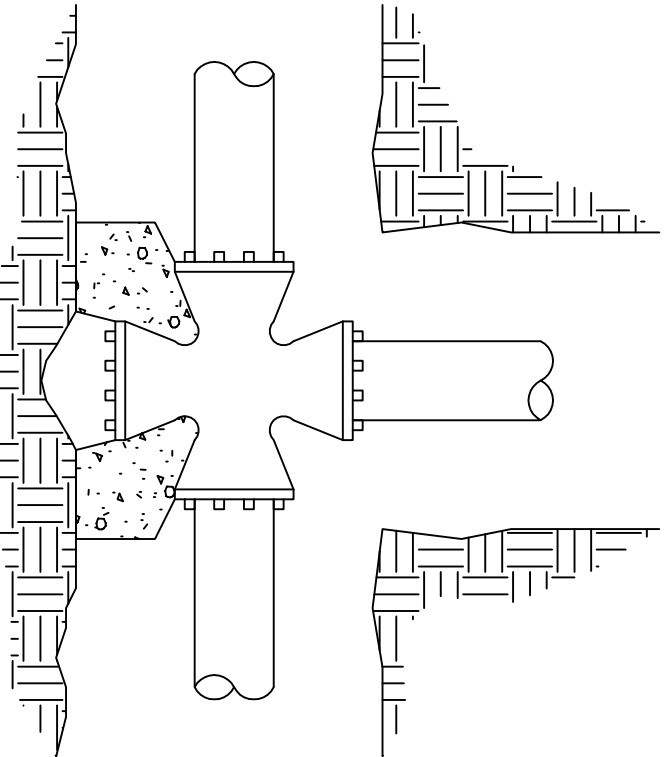
CROSS



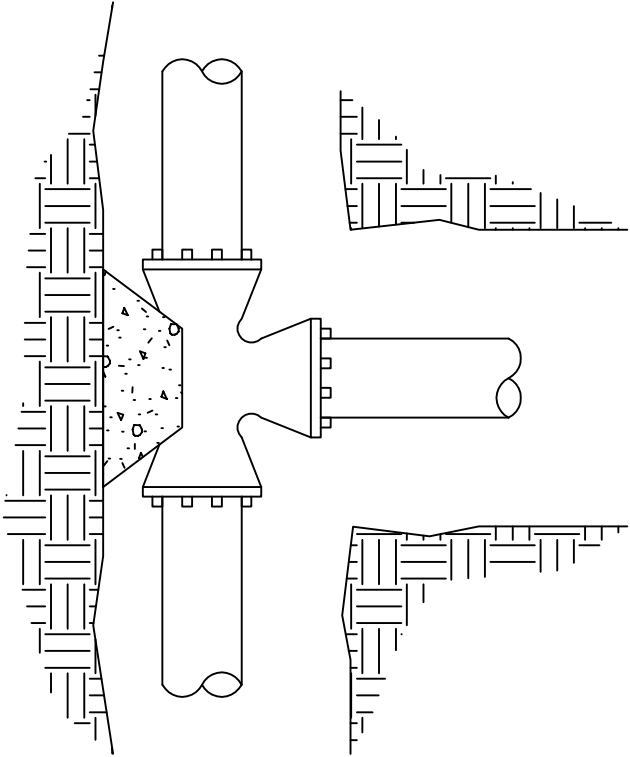
STRADDLE BLOCK



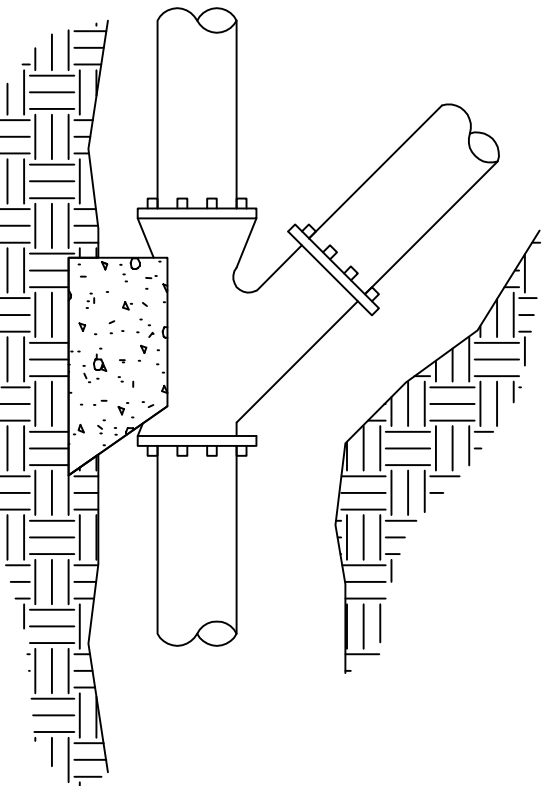
BEND



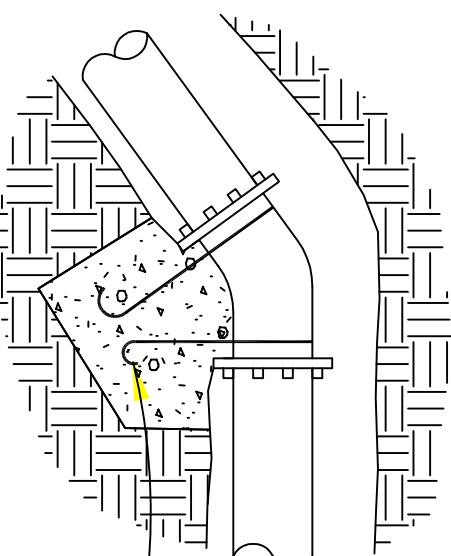
CROSS



TEE



WYE



VERTICAL BEND

RODS FOR VERTICAL BENDS			
FITTING SIZE	ROD SIZE	EMBEDMENT	
12" AND LESS	#6	30"	
14"-16"	#8	36"	

- NOTES:
- CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
 - ALL CONCRETE TO BE CLASS 3000 MINIMUM.
 - INSTALL ISOLATION MATERIAL BETWEEN PIPE AND/OR FITTINGS BEFORE POURING CONCRETE BLOCKING.
 - CONCRETE SHALL BE KEPT CLEAR OF ALL JOINTS AND ACCESSORIES.
 - THE RODS SHALL BE DEFORMED GALVANIZED COLD ROLLED STEEL, 60,000 PSI TENSILE STRENGTH.

THRUST BLOCK DETAILS

ENGINEERING DEPARTMENT

1924 COUNCIL STREET
P.O. BOX 326
FOREST GROVE, OR 97116

city of forest grove